Physician use of the curbside consultation to address information needs: report on a collective case study

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Purpose: The author reports key findings from a doctoral dissertation investigating what the curbside consultation is, how and why physicians use it, and what the implications for health sciences library services might be.

Settings/Informants: Primary informants included sixteen primary care physicians at six sites in one Midwestern state. Additional informants included twenty-eight specialists and subspecialists identified by the primary informants as colleagues who provided curbside consultations.

Methods: Qualitative research methods were used, including field observations, formal and informal interviews, and conversations with peer review physicians.

Results: Despite a lack of consensus about what constitutes a ''good'' curbside consultation, physician informants reported that curbside consultations were part of their medical education and that they continued to take part in them for a number of reasons. Tacit rules govern curbside consultation interactions, and negative consequences result when the rules are misunderstood or not observed.

Discussion/Conclusion: Acknowledging and understanding physicians' use of the curbside consultation to obtain and construct knowledge may suggest new ways for health sciences librarians to work with physicians in locating, diffusing, and disseminating clinical information.

INTRODUCTION

This article reports on selected research results from the investigator's doctoral dissertation, *Underlying Meanings of the Physician Curbside Consultation* [1]. That study addressed three primary research questions: are there differences between what physicians say they want to accomplish in curbside consultations and what they report as the consequences of that activity; how do physicians describe the purposes and rules for doing a curbside consultation and what happens if the rules are not followed; and do Goffman's ideas about the performative aspects of role appear in descriptions of curbside consultations that physicians articulate? This article focuses on the second of these questions.

LITERATURE REVIEW

Despite evidence that the medical literature can answer questions related to patient care [2, 3], physicians often turn to their colleagues rather than to print resources for answers [4–6]. A number of factors influence physicians' information-seeking behavior, including the pressures of time [7], convenience of access [8], perceived applicability of the information to the clinical question [9], and the physician's career stage [10]. Rural physicians need ''just in time'' access to current, quality patient care information, synthesized in such a way that it is easily digested. Colleagues ''are familiar, reliable, immediately available, and inexpensive; they give concise, organized answers'' [11].

Physicians' reliance on immediately available colleagues for clinical information may also have to do with how clinical practice is viewed in a given physician community. In that community, physicians work in a social context—they work in concert with one another rather than autonomously [12]. In doing so, they make use of both global and local clinical knowledge. Global knowledge crosses geographic boundaries; local knowledge, on the other hand, is information specific to a particular site [13]. Locally situated routines, which encompass both tacit and explicit rules, deter-

mine a physician's frame of reference and the way in which a problem is articulated [14]. This local frame of reference is brought to bear on the practice of evidence-based medicine, helping the physician decide whether or not external evidence relates to a particular case and, if so, how it should be acted on [15].

The medical literature indicates that curbside consultations are a type of physician information seeking and that they take place routinely in the practice of patient care medicine [16–19]. Physicians report that they initiate curbside consultations for a variety of reasons, including the perceived reliability of an expert's opinion, urgency, cost, timeliness, accessibility, convenience, fear of malpractice litigation, reassurance, desire for an academic discussion, and autonomy [18, 20–22].

BACKGROUND

As a medical librarian for eleven years, the investigator had an ongoing interest in how physicians use libraries in everyday clinical practice. Library use records indicated that few physicians on the hospital medical staff visited the library in person. The records also indicated a decline in the number of physician requests for formal literature searches, despite positive responses from physicians about the quality of the searches done. Why? Did this situation signal a need to rethink library services, given the ways in which physicians sought out and used information in their clinical work?

From a broader perspective, given the volume of medical information available to physicians, how did they decide what information to use with their patients? How did physicians distinguish information that was relevant to the case at hand from information that was not relevant? Neither reflection on these questions nor conversations with professional colleagues yielded satisfactory answers.

A conversation between two physicians ''opened a door'' for the investigator. ''It is interesting,'' mused the two senior physicians, ''that we don't really think about something we do all the time.'' The ''something'' they were discussing was the curbside consultation, ''the process in which a physician seeks information or advice about patient care from another physician who has a particular expertise without obtaining a formal consultation between the patient and the consultant physician at that time'' [20].

Continued conversations between the investigator and physician colleagues provided a basic understanding of what the curbside consultation is and how it differs from the formal consultation. The informal curbside consultation and the formal consultation both have to do with clinical information seeking. They differ, however, in significant ways. In a formal consultation, one physician formally refers the patient to another physician for consultation. The consulted physician sees the patient, documents the care provided in the patient's medical record, and is reimbursed for the services provided. Ideally, the two physicians exchange information to provide an integrated program of care for the patient. They are each held legally accountable for the care they provide.

In contrast to the formal consultation, a curbside consultation does not establish a formal physician-patient relationship. Agreeing to take part in a curbside consultation does not make the consulted physician responsible for the patient in question; the responsibility for the patient remains entirely with the requesting physician. No money changes hands as a result of this information exchange. The consulted physician is not reimbursed for providing information or advice. In essence, the consulted physician provides a ''free'' service for the physician requesting a curbside consultation. Finally, the interaction generally remains invisible to the patient. In most cases, the requesting physician does not relate details of the exchange to the patient whose case has been discussed.

The term ''curbside'' is commonly used by itself to denote an informal consultation. In conversation, some physicians use the term curbside as a verb—they talk about ''being curbsided,'' or asked for advice. Other physicians use the terms ''backdoor,'' ''hallway,'' ''lunchroom,'' or ''coffee room'' consultation. Each of these ''place'' terms emphasizes the informal nature of curbside consultations and the fact that they frequently take place opportunistically, as physicians go about their routine activities. Whatever the appellation, a review of the medical literature and discussions with physicians indicate that the curbside consultation is common practice. It is as much a part of a physician's persona as the stethoscope draped about the neck.

INFORMANTS AND STUDY SITES

Selection of informants and study sites was purposive and criterion based. Using a collegial network of physicians and health system colleagues, the investigator identified sixteen physicians who practiced family or internal medicine in three areas of one Midwestern state and who agreed to act as informants. The sixteen primary informants were organized in two categories: group 1 included eight family practice and internal medicine physicians, seven of whom were board certified; group 2 included eight board-certified family practice and internal medicine physicians in the same practices as those in group 1. Twenty-eight specialists and subspecialists selected, consulted, and named by group 1 and group 2 informants served as secondary, group 3 informants.

Group 1 and group 2 informants practiced in 6 different clinics. Clinic 1 was a family practice group of 6 physicians located in a town of approximately 8,500 people. Clinics 2, 3, and 4 were located in a city of approximately 24,000 people. Clinics 2 and 4 were internal medicine practice groups; clinic 3 was a family practice group. Clinics 5 and 6 were parts of a health system that included approximately 20 sites of care within a 70-mile radius. Clinic 5 was a solo physician practice located in a town of approximately 1,300 peo-

ple. Clinic 6 was a new 2-physician family practice clinic in a small city of approximately 2,300 people.

METHODS

Because existing studies of the physician curbside consultation were primarily quantitative [17–21], the investigator chose to do a collective case study, utilizing a naturalistic inquiry approach and qualitative research methods to provide a complementary perspective of the practice.

Data collection and analysis

The institutional review board of the investigator's institution, Emporia State University, reviewed and approved measures taken to ensure ethical procedures for data collection and management. Physician informants read and signed the informed consent forms at the beginning of the data collection process. The signed forms were handled according to review board guidelines. To ensure confidentiality during discussion of study findings, the names of physician informants and study sites were assigned coded identities. Hospital administrators or the research review boards of the hospitals were contacted at the beginning of work at each site to assure their understanding of and support for the observation carried on within hospital premises. Finally, issues related to patient confidentiality protocols at each site were reviewed with physician informants. Data collection did not include physician-patient interactions.

Data collection took place over a period of fifty weeks in 2000. The investigator spent sixty-nine days in the field, observing informants and conducting both formal and informal interviews. Sixteen physicians were observed for periods ranging from one day to nine days each. During observation, the investigator shadowed physician informants as they went about the normal course of their routine activities, with the exception of patient-physician interactions. The content and structure of the informal interviews arose from the context of the physicians' activities and were used to clarify events, workplace procedures and processes, physician and clinical staff perspectives, and other situations that warranted explanation.

The investigator conducted two formal, audiotaped interviews with each of the physicians in groups 1 and 2. The first interview (Appendix A) was conducted on the first day of observation with each physician; the second interview (Appendix B) was conducted on the last day of observation. Interviews ranged from twenty to forty-five minutes in length. During first round of interviews, group 1 and group 2 physicians were asked to identify area physicians with whom they had done curbside consultations. Forty-seven of the identified physicians were contacted for interviews. The investigator did not attempt to contact physicians who had moved from the area. Twenty-eight of the forty-seven contacted physicians agreed to be interviewed as group 3 informants. The group 3 interviews (Appendix C) were conducted in the same manner as the groups 1 and 2 interviews. All physicians in groups 1 and 2 and seven physicians in group 3 were asked and agreed to provide member checks by reviewing, revising, signing, and returning a copy of their own transcribed interview. Additional collected data included artifacts from each site and ''debriefing'' conversations with two off-site physician-scholars who acted as peer reviewers.

Data analysis began during the first week of data collection and continued throughout the time spent in the field. Data from handwritten field notes and transcribed interviews were reviewed and coded according to a provisional list of codes the investigator developed prior to fieldwork [23]. The initial coding system evolved into a pattern code that was used to identify repeating patterns, themes, and explanations. As done during data collection, the investigator used conversations with two physician-scholars to provide essential context to understand seemingly contradictory data.

RESULTS

The dissertation [1] addressed three primary research questions. This article focuses on research question two: how do physicians describe the purposes and rules for doing a curbside consultation, and what happens if the rules are not followed? Secondary research questions related to question two include the following:

1. For what purposes do physicians say they initiate curbside consultations?
2. For what purposes do physicians say they provide curbside consultations?
3. What do physicians say about the rules for doing a curbside consultation?
4. What do physicians say about the consequences of not following the rules?

For what purposes do physicians say they initiate curbside consultations?

Informants' responses to questions about the purposes for which they initiated curbside consultations were grouped in ten categories.

To confirm what they already know. Physicians who reported that they used the curbside consultation to confirm what they already knew frequently used the verb ''bounce.'' They bounced ideas off their practice partners, if they had partners, or other physicians in the vicinity. One physician explained this practice by saying,

> Because there's always—you build a differential. And your differential is a rough odds-on favorite, you know. And you just want to make sure that your quick assessment and evaluation and everything—do you have all the odds laid out? And so they're standing about where they should as far as top ranking? Or is there another one that I'm totally clueless about?

The same physician and his practice partner report-

ed that they had conferred with each other during residency, even when they were on clinical rotations in different parts of the state. Their comfort with one another and the degree of support they provided one another appeared to have a direct relationship when it came to validating a course of action.

To get quick answers. Physician informants also reported that they used the curbside consultation to get a quick answer to a question. The nature of the question generally had to do with diagnostic or management issues. Reported or observed questions ranged from relatively straightforward (e.g., ''Could the soft tissue mass shown on this X ray be cancer?'') to involved questions such as exploration of differential diagnosis, treatment options, drug interactions, and other issues (e.g., ''I have this seventy-six year old lady who came in with atrial fibrillation. She has a past history. She's already anticoagulated. And this is what I've been doing so far. I'm having a little trouble getting her rate under control.'').

To continue their education. Physicians also used the curbside consultation to increase their knowledge in an area of interest. A family physician said that in one such situation he had a patient with small vessel disease and was struck by the number of patients that he had seen recently with that condition. When he bumped into a subspecialist who had come in from out of town to do a clinic, he took the opportunity to ask him about ways of preventing small vessel disease.

Another informant asserted that a ''good'' curbside consultation functions as a learning experience. He said that he saw certain types of cases so often that he learned what was typical and what was atypical. Even though he saw typical cases over and over, he was aware that he needed to stay current with new ways of treating them. Asking a curbside consultation in relation to a typical case was one way of doing so. An atypical case—when a patient did not respond to treatment as expected—could also trigger a curbside consultation. In this situation, he received not only an answer to a specific patient case but also a learning experience that he could apply to later cases.

To lead into a possible formal consultation. Physicians indicated that at least half of the curbside consultation questions they asked were done with an underlying intention of exploring the possibility of a formal consultation. Informants said that they would not ask for a curbside consultation unless they were ready to refer the patient at the consulted physician's request.

To negotiate an appropriate course of action in a particular patient case. Physicians in groups 1 and 2 talked about the curbside consultation as a collaborative enterprise, one they undertook for the purpose of negotiating an appropriate course of action in a patient case. In other words, they viewed the curbside consultation as a communication device that could be used in concert with subspecialists to triage patients. Through negotiation, the physicians involved in a curbside consultation could determine who needed to see the patient: the primary care physician (who acts on ongoing advice from the subspecialist in some cases) or the subspecialist (who receives a formal referral of the patient). Physicians in all three groups emphasized that triage was particularly important in medically underserved areas where physicians in all specialties were hard-pressed to see all of the patients who needed to be seen.

To spread the emotional risk during a difficult case. Several physicians said that a curbside consultation could be used to ''spread the risk'' during a particularly challenging case. The investigator first assumed this had to do with legal liability, but that original perception was incorrect. The physicians were talking about the emotional investment in a difficult patient case, a physician's personal response to the responsibility involved. For example, a physician in practice for almost thirty years said,

> Without a consult or a university setting where you've got senior physicians above you, when a patient dies it's just you, the patient, and the patient's family. The curbside consultation can soften the impact so it wasn't just you that cared for him or her.

To create or sustain camaraderie with physician colleagues. A number of physicians talked about curbside consultations as a way to create or sustain camaraderie or collegiality. In one clinic, for example, physicians met every morning in the doctors' lounge of the hospital. They drank coffee, read the paper, talked about the local sports teams and other news of interest, and shared patient stories. Stories were offered and considered. Some stories were accompanied by explicit questions: ''Did I do this right?'' or ''Was there something else that I should have done?'' Each of the studied sites included some variation of this collegial interaction.

To find like thinkers among their physician colleagues. Some physicians said that they asked for curbside consultations to find ''like thinkers,'' physicians who were similar to them in what they called style. The notion of style was used in reference to the characteristic manner in which a physician practiced medicine, especially in regard to behavior with patients. The curbside consultation offered a means for sorting out who, among the physicians available for questions, practiced in a similar way. This sorting process seemed particularly important for physicians who were new to an area.

To monitor their own knowledge. Many informants talked about how the consultations maintained their confidence in their competence as physicians. A primary care physician not long out of residency used the phrase ''check and balance system'' in relation to the curbside consultation. He said he sometimes asked

curbside questions to make sure he stayed on course with mainstream medicine.

To get out of a difficult situation. Finally, some physicians said the curbside consultation provided an ''out'' in an untenable situation. For whatever reason, the physician might want to transfer a patient to another physician. The curbside consultation offered a tactful means by which to investigate the possibility of a transfer.

For what purposes do physicians say they provide curbside consultations?

Responses from group 3 physicians during formal interviews about why they answered curbside consultation questions were grouped into three categories.

To provide good patient care. Group 3 physicians said that doing curbside consultations helped patients in a number of ways. They agreed with primary care physicians who said that the curbside consultation provided a way to triage patients, separating those who needed to be referred to a subspecialist from those who could be treated by the primary care physician with advice from the other physician. Physicians also pointed out that the curbside consultation could increase patient care options, because ''two brains are better than one.''

In some situations, the curbside consultation provided an opportunity for subspecialists to help patients by mentoring their physicians. One subspecialist admitted that he had watched another physician work and was hoping for an opportunity to provide information that he felt was important for the other physician to know. If that physician would just ask him a question, he could provide some coaching without risk of offending the other physician, something he did not want to do. Another subspecialist said the curbside consultation was an opportunity to ''clean up mistakes'' (e.g., ''This doesn't make sense, can you look at this echo?''). Group 3 informants also pointed out the potential savings in time and money to the patient, if they could provide useful information without having to see the patient formally.

To fulfill professional obligations. One subspecialist explained that he felt obligated to answer curbside questions and said,

> I'm in a service profession. I'm serving not only the patients in [the area] but also the doctors who are managing those patients. I need to be of service, and I do that the best that I can, given some of the inadequacies of the curbside consult.

Another displayed surprise at being asked why he provided curbside consultations, saying, ''Because I'm asked, I guess. I mean, is it an optional thing? Would I walk away and say, 'No, I won't talk to you?' It would seem odd not to answer their question.'' Yet another talked about the fact that he knew the people who asked him questions. If he had information they needed, he thought it only right to share it. In other words, with an ongoing relationship, part of that relationship entailed sharing what he knew. ''I can't imagine not doing them,'' said another physician. On a less positive note, one subspecialist, who had been entangled in a malpractice lawsuit because he provided a quick curbside consultation to a physician with whom he was not well acquainted, called the conversations ''a necessary evil'' but emphasized that his negative attitude did not include those physicians with whom he had formed strong, ongoing relationships.

To encourage formal referrals. The third purpose that group 3 physicians identified for providing curbside consultations was to build rapport with other physicians. They pointed out that building and maintaining good relationships with their colleagues benefited them in a practical way. That is, physicians with whom they had good relationships would formally refer patients to them.

What do physicians say about the rules for doing a curbside consultation?

During interviews and observation, the investigator asked a number of physician informants how they had learned to do curbside consultations and what rules they had been given for doing them. Their response was generally a bemused shake of the head or shrug of the shoulders. Most said that there were no rules, they just knew how to do them. When asked what the curbside consultation was most like in terms of other work they do, physicians generally likened the practice to presenting a patient during clinical rounds. It appeared that, in the absence of a standard set of rules for doing curbside consultations, physicians generally defaulted to what they had learned about doing case presentations during rounds.

A family practice physician summarized the process of learning to present cases and likened it to doing the curbside consultation in the following way:

> Often, students drown listeners with minutiae rather than giving an impression or a ''gut'' feeling. Eventually they learn to say what they've done, the lab results so far, their gut feeling, what they plan to do. Then they should be able to say, ''What do you think I'm missing here?''

The model of a good curbside consultation, continued the family practice physician, ''was to say what you know and what you don't know. Then you hope the person you are consulting with will treat you with respect.''

Although no formal set of rules for doing curbside consultations were found in the literature or identified by study informants, data analysis identified common themes that appeared to govern physician conduct. The predominant theme was the need to demonstrate mutual respect. Appendix D includes guidelines derived from analysis of the data with guidelines for both participants in a curbside consultation as well as

guidelines specific to the behavior of requesting physicians and consulted physicians.

What do physicians say about the consequences of not following the rules?

Informant responses indicated that infractions of the tacit rules for taking part in curbside consultations had negative consequences. Requesting physicians who could not present relevant information, frame a clear question, or answer consultant questions in a well-informed manner were generally asked to formally refer the patient. Consultants who responded to requests for curbside consultations in a manner that was perceived as unsatisfactory were ostracized, either from future curbside consultations or, in the most dramatic cases, from formal patient referrals.

DISCUSSION AND CONCLUSION

The results of this study suggest that physicians who consult with respected colleagues are using those conversations to identify and make use of the best medical evidence, filtered through a colleague's years of experience and knowledge of how medicine is practiced in that area. This ''just in time'' information bridges global and local knowledge and is provided by colleagues with whom they share professional and personal bonds. The idea of a ''web of knowledge'' may be one way of modeling what takes place during a curbside consultation. Talja [24] described information as being formed within a socially constituted episteme, or web of knowledge. The curbside consultation can be thought of as the joint product of knowledge about a patient case by physicians sharing their expert knowledge, guided by similar sets of assumptions about how medicine is done in a particular community.

Acknowledging and understanding physicians' use of the curbside consultation to obtain and construct knowledge can suggest new ways for health sciences librarians to work with physicians in the diffusion and dissemination of clinical information. First, understanding the importance of the oral construction of knowledge in the curbside consultation explains, in part, why physicians with clinical questions frequently seek out their colleagues rather than conduct or request a literature search. Curbside consultations ameliorate the obstacles of time, accessibility, and applicability. Physician colleagues privilege each other's inquiries, even to the point of leaving a patient examination room to respond to a telephone call. They use observation and what one physician called ''trial balloon'' curbside consultations to help them identify colleagues whose practice style seems close to their own and, therefore, trustworthy. Through observation, conversation, and experience, they identify colleagues who are particularly well informed in a clinical area and file that knowledge away for future use. When clinical questions arise, they apply human intellectual capital to the problem, using the curbside consultation as an access point.

Second, given an understanding of the nature and significance of the curbside consultation, health sciences librarians can explore new ways of working with physicians in locating, evaluating, and disseminating clinical information. The tacit rules physicians use to guide the curbside consultation can be useful in evaluating the process by which library staff communicate with physicians as well as the manner in which the results of clinical information searches are packaged and delivered. If they can identify the local customs in place—where and how physicians interact and share clinical information—they can use that information in the strategic allocation of library resources and services.

Finally, if they can identify and develop relationships with local physicians who are respected for their knowledge in particular subject areas, health sciences librarians can design selective dissemination of information (SDI) services specific to those subject areas. In some cases, diffusion of information from one physician to another may better serve the information needs of clinical care than dissemination of information directly from the library to individual physicians. Each of these activities might complement or even facilitate a staple of physician information seeking: the curbside consultation.

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REFERENCES

1. Perley CM. Underlying meanings of the physician curbside consultation [dissertation]. Emporia, KS: Emporia State University, 2001. (UMI no.: AAT 3028623.)
2. Gorman PN, Ash J, Wykoff L. Can primary care physicians' questions be answered using the medical journal literature? Bull Med Libr Assoc 1994 Apr;82(2):140–6.
3. Marshall JG. The impact of the hospital library on clinical decision-making: the Rochester study. Bull Med Libr Assoc 1992 Apr;80(2):169–78.
4. Curley SP, Connelly DP, Rich EC. Physicians' use of medical knowledge resources: preliminary theoretical framework and findings. Med Decis Making 1990 Oct–Dec;10(4): 231–41.
5. Ely JW, Burch RJ, Vinson DC. The information needs of family physicians: case-specific clinical questions. J Fam Pract 1992 Sep;35(3):265–9.
6. Haug JD. Physicians' preference for information sources: a meta-analytic study. Bull Med Libr Assoc 1997 Jul;85(3): 223–32.
7. Ely JW, Osheroff JA, Ebell MH, Bergus GR, Barcey TL, Chambliss ML, Evans ER. Analysis of questions asked by family doctors regarding patient care. BMJ 1999 Aug 7; 319(7206):358–61.
8. Covell DG, Uman GC, Manning PR. Information needs in office practice: are they being met? Ann Intern Med 1985 Oct;103(4):596–9.
9. Connelly DP, Rich EC, Curley SP, Kelly JT. Knowledge resource preferences of family physicians. J Fam Pract 1990 Mar;30(3):353–9.
10. Cohen SJ, Weinberger M, Mazzuca SA, McDonald

CJ. Perceived influence of different information sources on the decision-making of internal medicine house staff and faculty. Soc Sci Med 1982;16(14):1361–4.
11. DEE C, BLAZEK R. Information needs of the rural physician: a descriptive study. Bull Med Libr Assoc 1993 Jul; 81(3):259–64.
12. ENGESTRÖM Y. Developmental studies of work as a testbench of activity theory: the case of primary care medical practice. In: Chaiklin S, Lave J, eds. Understanding practice: perspectives on activity and context. Cambridge, UK: Cambridge University Press, 1993.
13. FORSYTHE DE, BUCHANAN BG, OSHEROFF JA, MILLER RA. Expanding the concept of medical information: an observational study of physicians' information needs. Comput and Biomed Res 1992 Apr;25(2):181–200.
14. BERG M. The construction of medical disposals: medical sociology and medical problem solving in clinical practice. Sociol of Health Illn 1992;14(2):151–80.
15. SACKETT DL, RICHARDSON WS, ROSENBERG W, HAYNES, RB. Evidence-based medicine: how to practice and teach EBM. New York, NY: Churchill Livingstone, 1997.
16. FOX BC, SIEGEL ML, WEINSTEIN, RA. ''Curbside'' consultation and informal communication in medical practice: a medicolegal perspective. Clin Infect Dis 1996 Sep;23(3):616–22.
17. KUO D, GIFFORD DR, STEIN MD. Curbside consultation practices and attitudes among primary care physicians and medical subspecialists. JAMA 1998 Sep 9;280(10):905–9.
18. MANIAN FA, JANSSEN DA. Curbside consultations. a closer look at a common practice. JAMA 1996 Jan 10;275(2):145–7.
19. MYERS JP. Curbside consultation in infectious diseases: a prospective study. J Infect Dis 1984 Dec;150(6):797–802.
20. KEATING NL, ZASLAVSKY AM, AYANIAN JZ. Physicians' experiences and beliefs regarding informal consultation. JAMA 1998 Sep 9;280(10):900–4.
21. MANIAN FA, MCKINSEY DS. A prospective study of 2,092 ''curbside'' questions asked of two infectious disease consultants in private practice in the Midwest. Clin Infect Dis 1996 Feb;22(2):303–7.
22. MAGNUSSEN CR. Infectious diseases curbside consultations at a community hospital. Infect Dis Clin Pract 1992; 1(6):391–4.
23. MILES MB, HUBERMAN AM. Qualitative data analysis: an expanded sourcebook. 2nd ed. Thousand Oaks, CA: Sage; 1994.
24. TALJA S. Constituting ''information'' and ''user'' as research objects: a theory of knowledge formations as an alternative to the information-man theory. [Web document]. Tampere, Finland: Department of Information Studies, University of Tampere, 1997. [cited 18 Jan 1999]. <http://www.uta.fi/~lisaka/ISIC.HTM>.
25. FLANAGAN JC. The critical incident technique. Psychol Bull 1954;51(4):327–358.

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APPENDIX A

Group 1 and group 2 initial interview questions

1. Critical incident [25]: Bring to mind, if you will, a specific incident during which another physician contacted you for a curbside consultation.
   a. What was the purpose of this curbside consultation?
   b. Whom did you contact or call? Why that person?
   c. How and when did you make the contact or call?
   d. How did you format your question?
   e. Were you satisfied with the end result? Why or why not?
2. How did you learn to do curbside consultations?
3. What do you think makes a good consult? A bad consult?
4. Whom do you contact or call? Is it all right to contact them, using your name?

APPENDIX B

Group 1 and group 2 exit interview questions

1. How do you get the clinical information you need?
2. How often do you search the medical literature for answers to specific clinical questions?
3. What proportion of your curbside consultations are done in-house (within the practice, not counting physicians who have clinics there)?
4. Do you record the curbside consultation in the medical record or in your own notes? Tell the patient?
5. How are the roles of family practice physicians and subspecialists similar? Different?
6. How do you decide who is competent?
7. What does it mean to be a physician? More specifically, what are the obligations and responsibilities of the profession with regard to other members of the profession?
8. What do you expect from a physician whom you contact for a curbside consultation?
9. When you consult a subspecialist informally, how often do you do so with the intention of referring the patient?
10. How do you ''weigh'' a response in terms of its accuracy and value to the particular patient case?
11. Under what circumstances do subspecialists ask to see the patient?

APPENDIX C

Group 3 interview questions

1. Critical incident: Bring to mind, if you will, a specific incident during which another physician contacted you for a curbside consultation.
   a. How was the contact made?
   b. With what words did the other physician initiate the consultation?
   c. How did the other physician phrase the actual question?
   d. How did you organize your response?
   e. Did you feel this was a satisfactory or an unsatisfactory consultation? Why?
   f. Please elaborate: What made this a good or a bad consultation?
2. Why do you do curbside consults?
3. Why do you think other physicians choose to consult with you?
4. Do you want or expect a follow-up call after a curbside consult?
5. What else do you think is important to note about the curbside consultation?

APPENDIX D

Guidelines for both participants

1. Physician communication is privileged.
2. Respect each other's time, expertise, and right to make a living.
3. Listen.
4. Be friendly in a sincere way.
5. Focus on the problem.
6. Be concise.
7. Stick to essential information.
8. Display interest, both verbally and nonverbally.
9. Use the conversation as an educational opportunity.

Guidelines for requesting physicians

1. Whenever possible, contact people you know and trust—people with whom you have a relationship.
2. Ask for help, but be sensitive to the fact that the other person may not want or be able to talk at that time.
3. Offer to formally refer the patient, if the person contacted prefers that option.
4. Be specific with all the necessary facts.
5. Know what you do not know and acknowledge that.
6. Speak with confidence.
7. Ask a clear, focused question.
8. Avoid defensive behavior.
9. Do not wait too long to call.
10. Be willing to consider new ideas.

Guidelines for consulted physicians

1. Avoid the implication that the question asked is stupid.
2. Address the question asked.
3. Educate in a tactful manner.
4. Display interest in the patient.
5. Invite physicians from whom you want referrals to contact you for informal consultations as well.
6. Provide information that is not only clinically correct but also practical, workable, and appropriate to the requesting physician.